

Michael Ferraro

Executive Director, FIT/Infor DTech Lab

A futurist and hybrid thinker.



I made my first picture with a computer in 1969



# FIT/INFOR DESIGN AND TECHNOLOGY LAB

DESIGNING THE FUTURE





The Lab was created from the inspired vision of **Charles Phillips**, CEO of Infor and **Dr. Joyce Brown**, President of FIT.

# Partnership

DTech Overview

10 / 28 / 2018



Driven by a **mission** to enhance education by engaging faculty and students as they solve **industry** problems with design and technology.

# Partnership

DTech Overview

10 / 28 / 2018

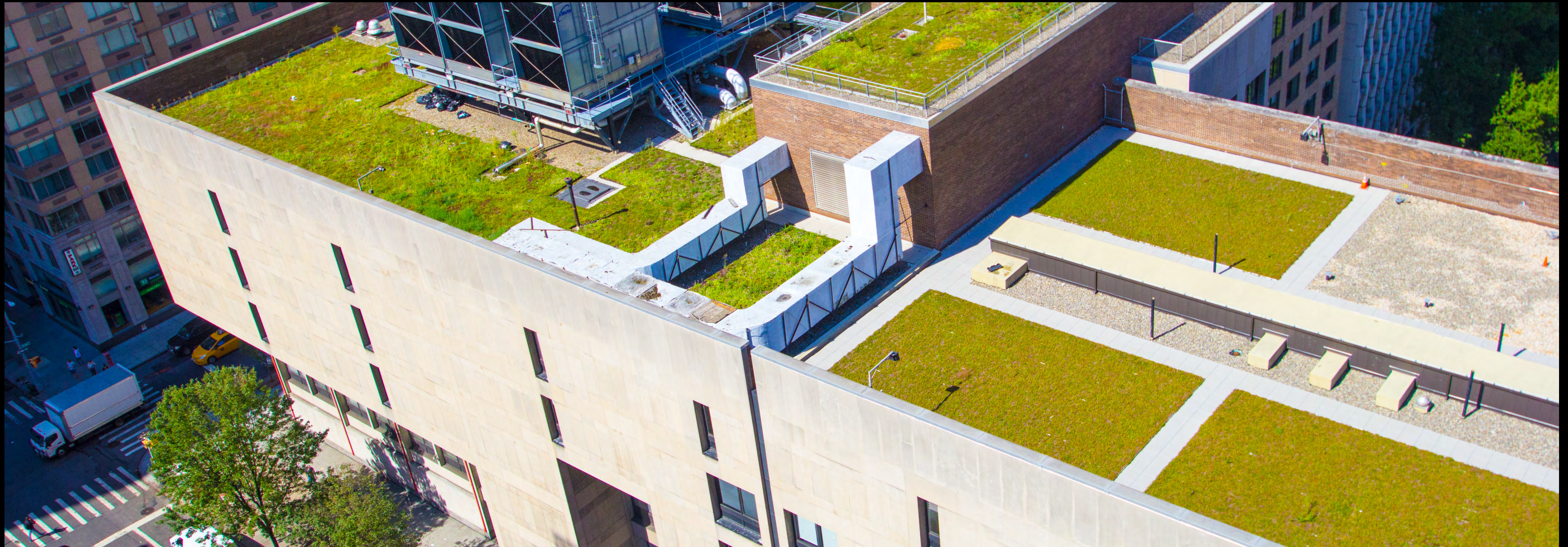


Located on the  
campus of FIT



State University  
of New York

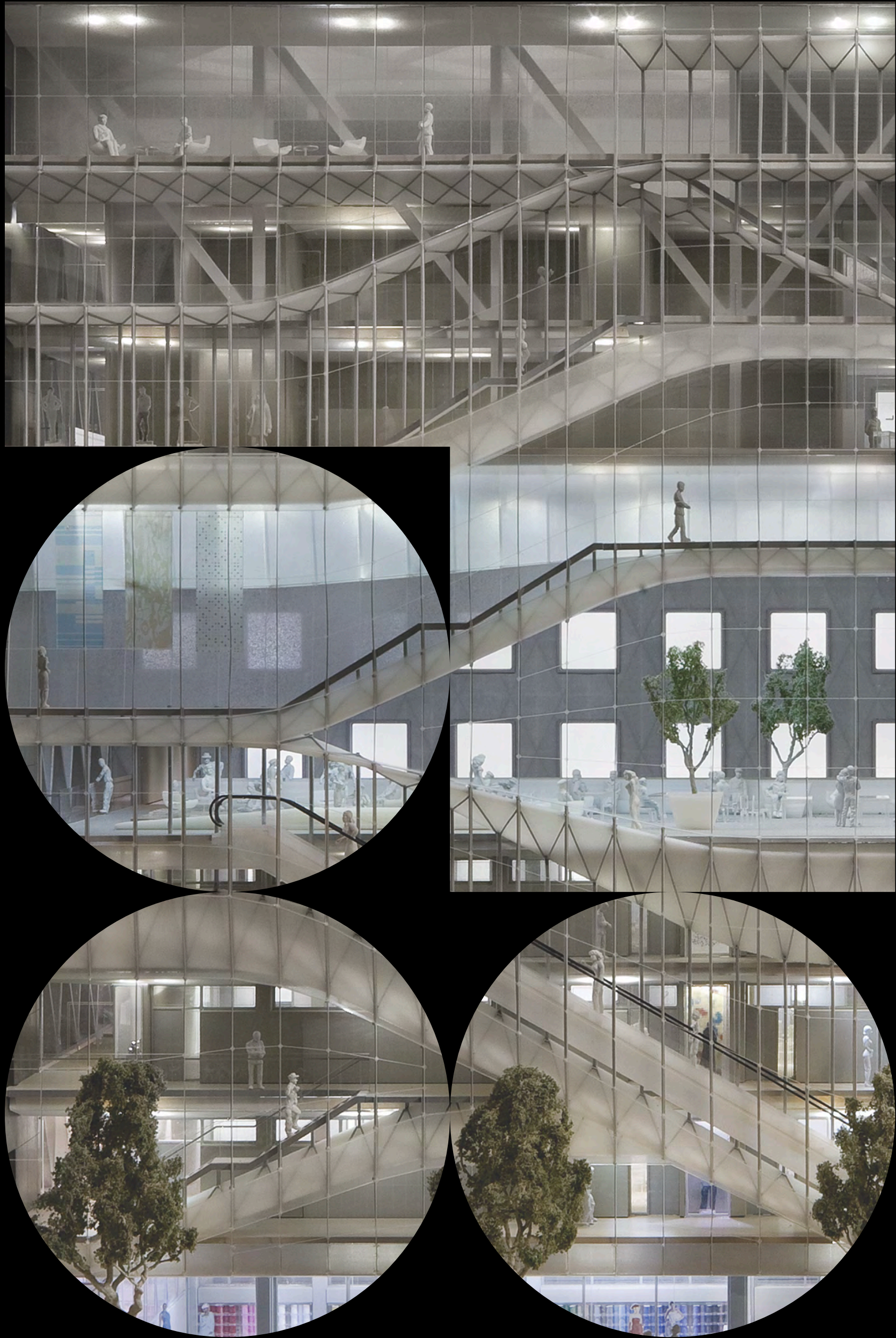
FIT is widely recognized as a premier educational institution for fashion and related fields.



We have a deep commitment to creating innovative **leaders** who recognize the value of **diversity** and the importance of **sustainability**.

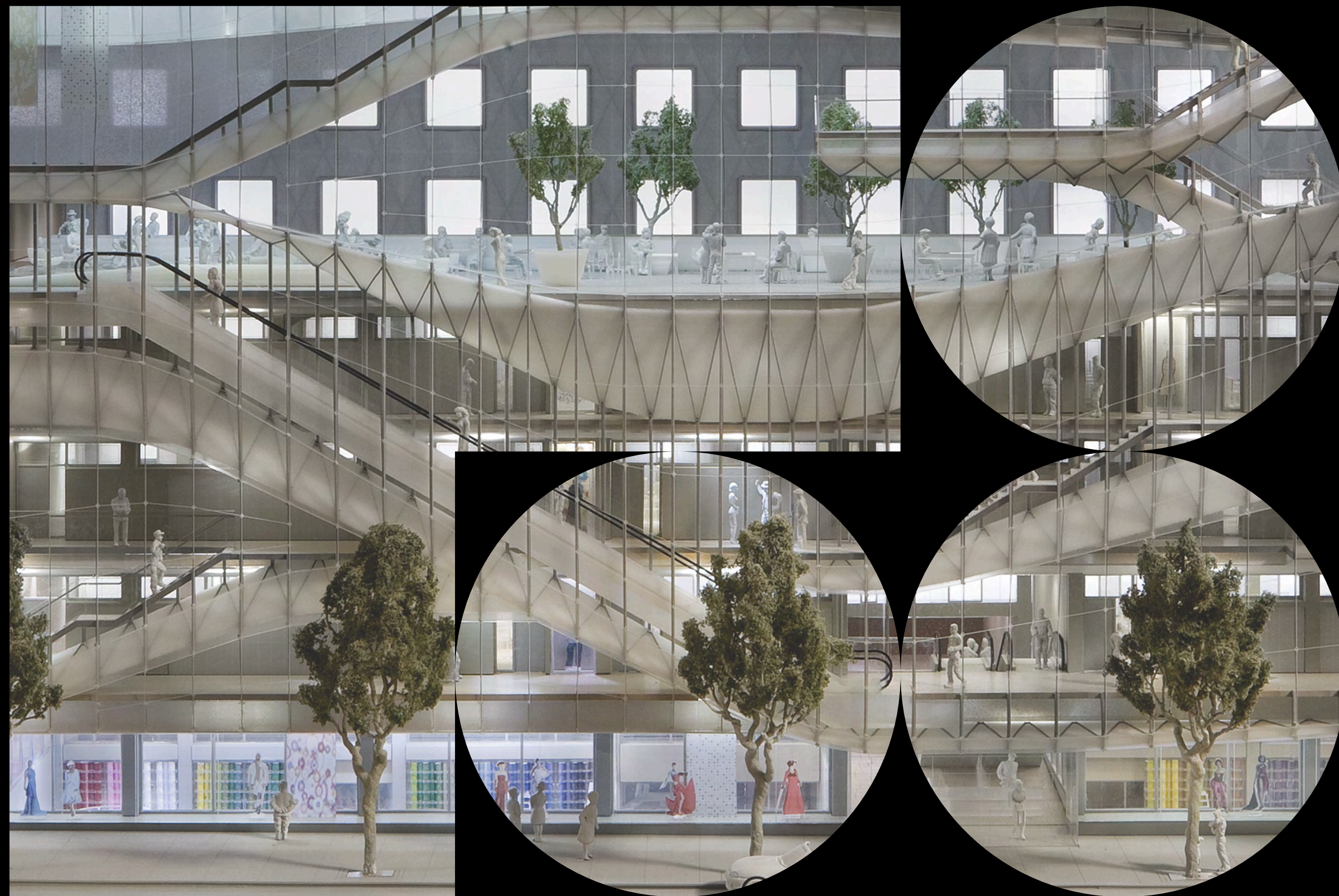
# Introducing

**FIT**  
**infor** **iDTech**



**FIT infor DTech**  
innovation

Partnering with industry we  
engage in innovative research  
that drives change.



**FIT infor DTech**  
innovation

We take risks developing new products and services that create value.

# Four Core Initiatives

## Enhance Education

Through projects that combine coursework with professionally guided learning,

we **leverage** the fresh perspectives and new ideas of talented, creative students.

## Engage Industry

Through partnerships from innovative tech startups to global technology leaders,

we undertake projects that **de-risk** innovation on behalf of major brands and retailers.

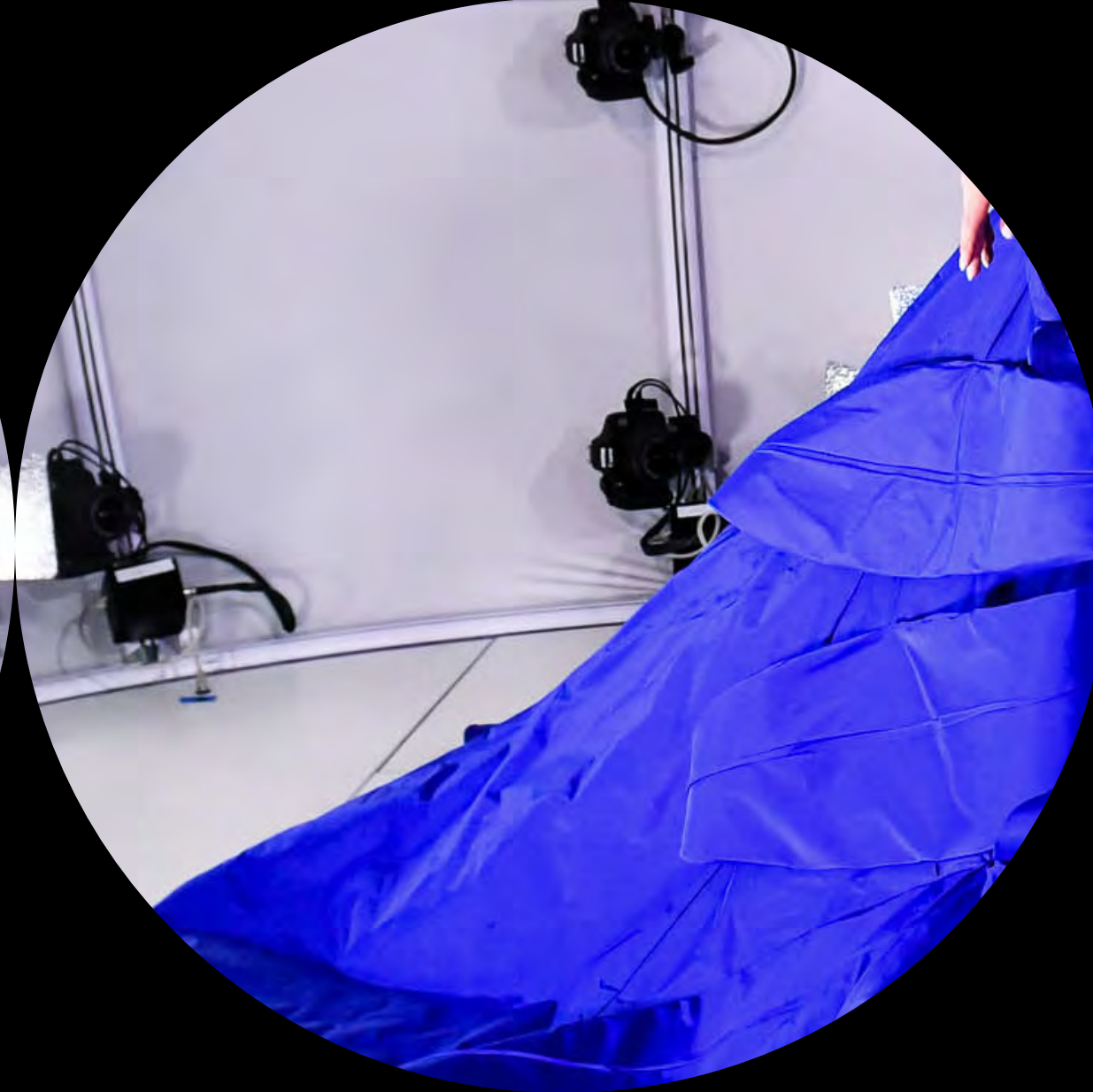
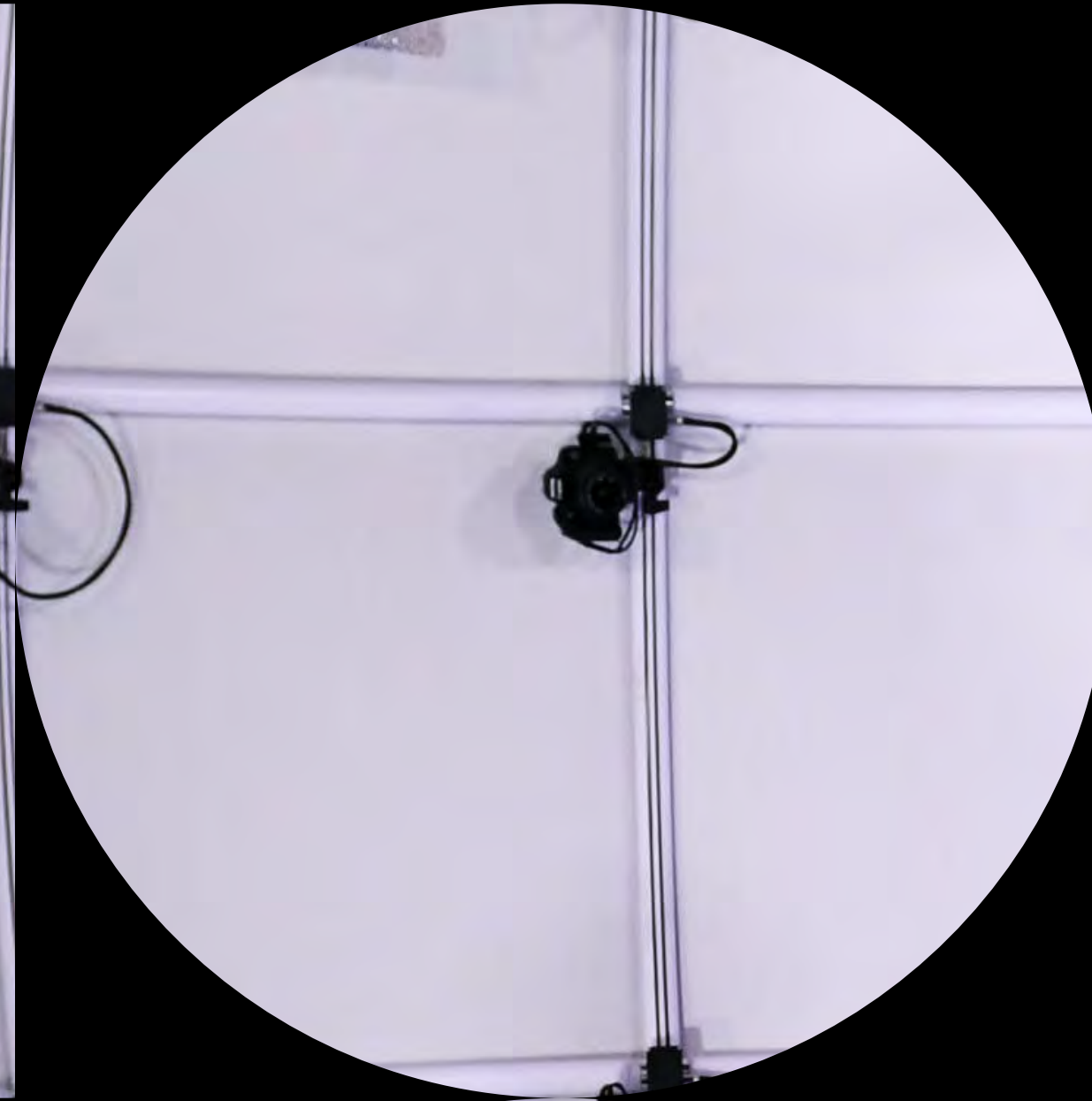
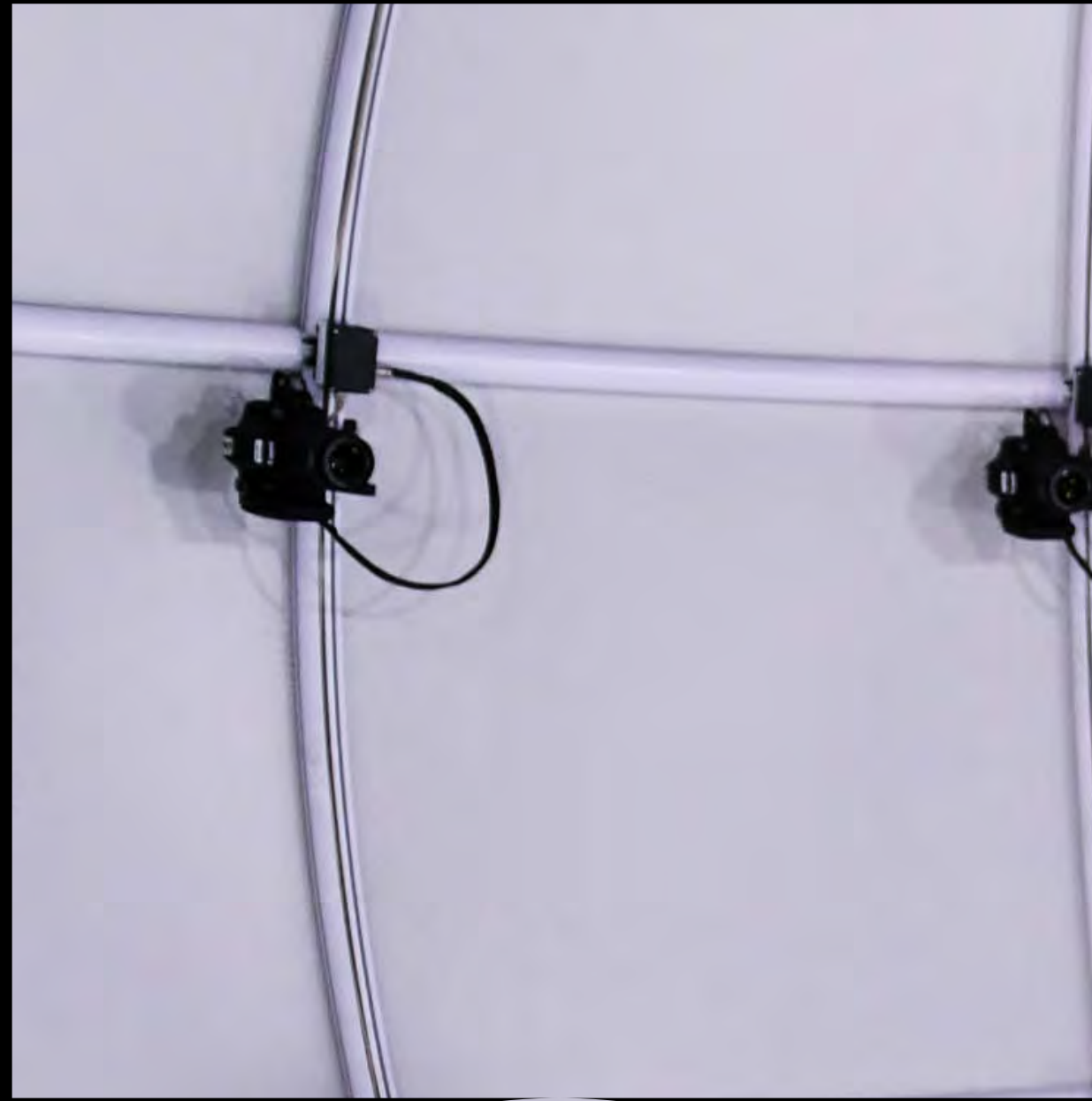
## Empower Entrepreneurs

Through direct engagement with emerging designers,

we **research** innovations that support early stage fashion businesses.

# Envision the Future

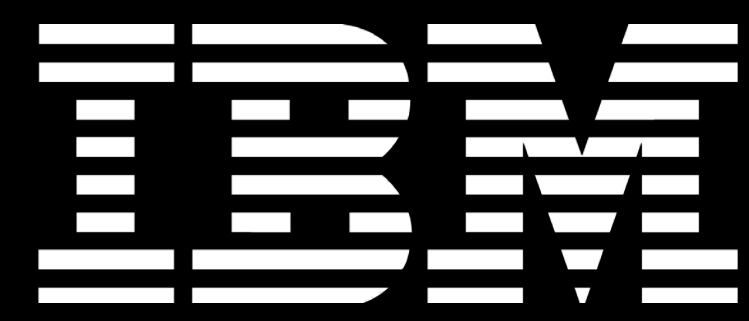
Through projects that explore emerging technology... we learn, we work and we **unite** ideas that shape the future of business and creativity



Since May of 2017 we have undertaken  
19 projects — engaging 23 faculty and 77 students

# Projects

REIMAGINING RETAIL



FIT faculty and students collaborated with **IBM** to explore how Artificial Intelligence can improve decision making in design, manufacturing and retail, on behalf of iconic lifestyle brand **Tommy Hilfiger**.



## 600,000 runway images

Collected from social media websites and available for search and discovery by cognitive tools.



## 15,000 Tommy Hilfiger images

Provided by Tommy Hilfiger from 3 years of catalog images, covering 6 seasons per year.



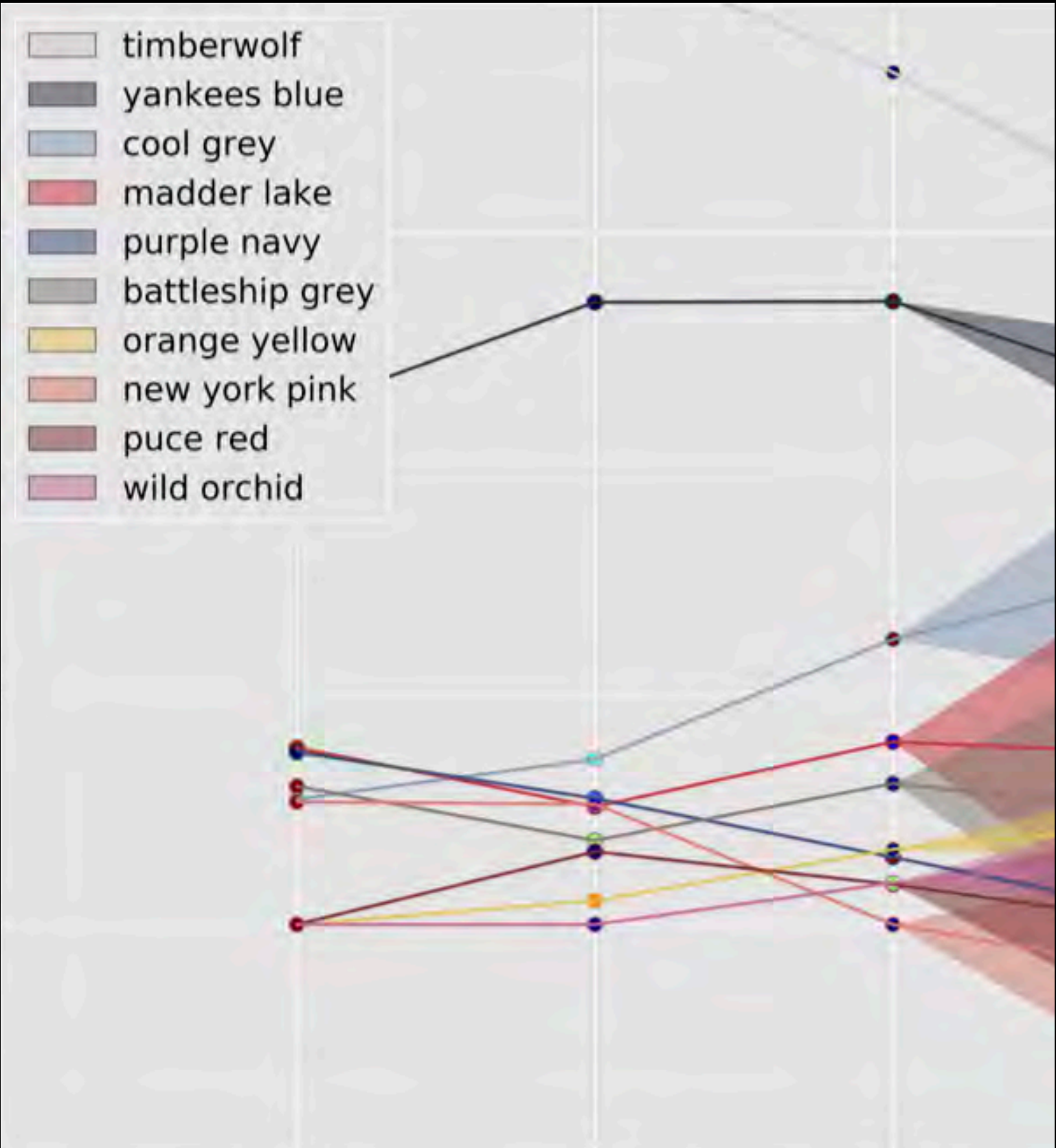
# Visual Discovery

similarity between two fashion images – including color, cut, silhouette and pattern allows ideas to be explored visually.



# Color Trends

dominant colors from past seasons are use to predict the popular and trending colors for the upcoming season.



# Cognitive Patterns

patterns are generated based on images that inspire you.



“It was like having a really smart  
assistant designer working right  
beside you”

Grace McCarty BFA 2018



Cognitive Fashion Analysis of the brand images helped the designer identify the color palette, silhouette and pattern.

The plaid panel, made up of the brand's key colors, is completely removable, making it easy to wash and also convertible into a casual color blocked rain jacket, consistent with Tommy Jean style and market.



Plaid Tech Jacket

The removable panel is made from color changing fiber and includes a processor to handle communication and control.



Plaid Tech Jacket



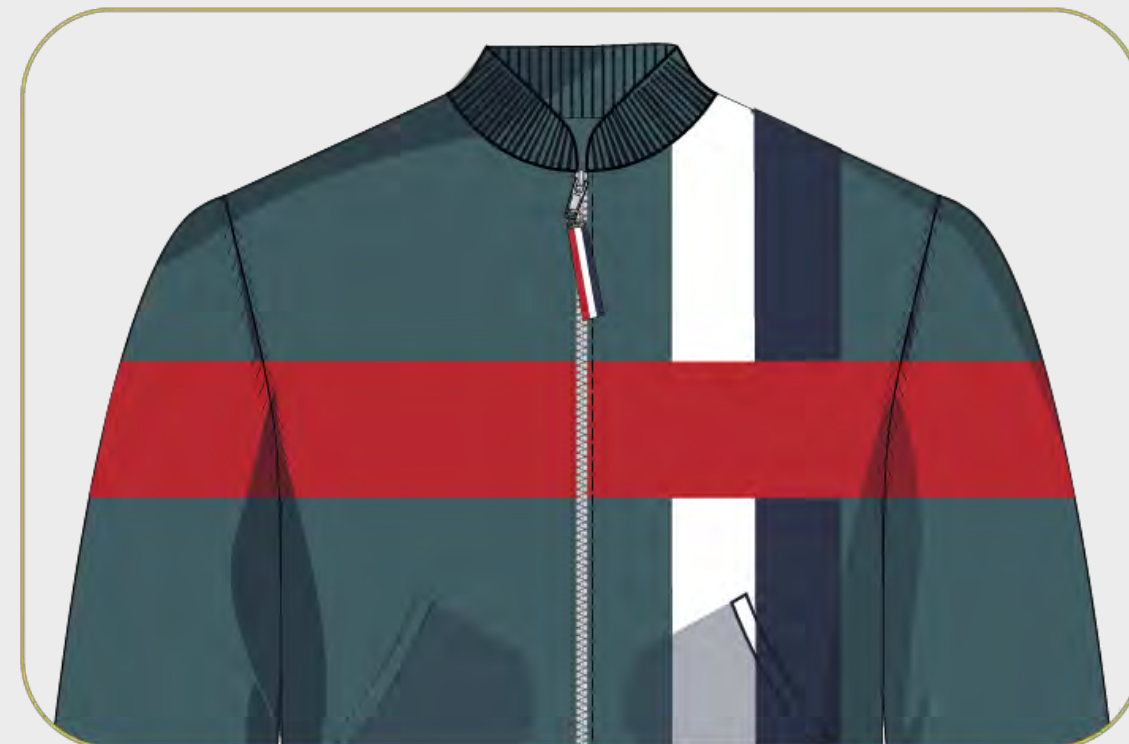
The Plaid Tech Jacket was featured at IBM booth at NRF in 2017 and has been shown at industry events around the worlds.

This A-line, colored denim dress has custom embroidered letters that are light sensitive



Solar Active Dress

This reimagined bomber jacket, utilizes sustainable manufacturing and is customized with Watson's Personality Insights tool.



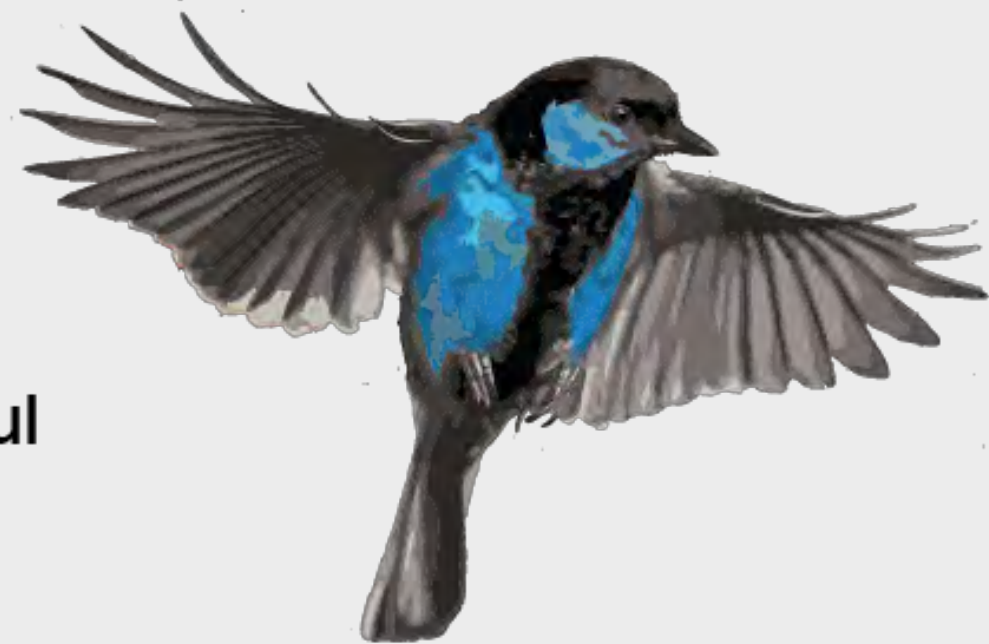
Cognitive Bomber Jacket



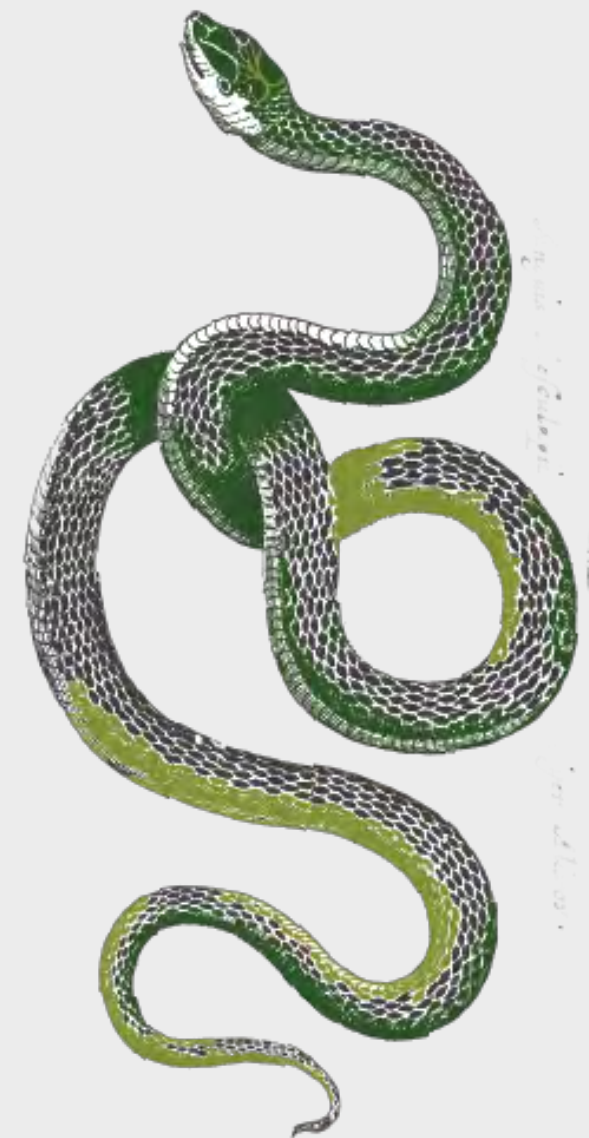
This reversible menswear jacket has an exclusive embroidery and print based on an avatar, determined using Watson's Personality Insights tool and IBM Color Prediction tool



diligent



playful



intuitive



Avatar Jacket

# NRF 2017 Innovation Lounge

IBM featured the story of the entire project at the dedicated booth where all the student work was presented.

### 1. Experiment

Immerse in AI capabilities, resulting analysis and try out different tactics.

Visual trend analysis of Tommy Hilfiger merchandise with IBM Cognitive Fashion

15,000

Catalog Images

3 Years

6 Seasons

2018

Predictions

Cognitive Fashion Tools

Color Trends

Silhouette Trends

AI-Generated Patterns

### 2. Incubate

Try, test, share, develop ideas, designs and concepts.

### 3. Innovate

Finalize and present outcomes: proposed designs, marketing campaign and customer experience.

#### Designs Utilizing Cognitive Fashion and AI

Plaid Tech Jacket

SolarActive Dress

Cognitive Print Sweatshirt

Cognitive Bomber Jacket

Avatar Jacket

White Tech Parka

Marketing Campaign called #DreamTommy, utilizing Natural Language Understanding to collect and inspire fans to dream.

Enhanced In-Store and Virtual Customer Experience, adding voice cognition, influencer-based buying and custom fashion ordering.

## What's Next?

Apply learnings and expand application of AI across the full value chain.

This collaboration with IBM and Tommy Hilfiger was exciting and transformative for us. The project has allowed us to equip students with advanced technology, to be the top fashion professionals of the future. It was an important step in fulfilling the FIT/Infor Lab's core mission to engage faculty and students and the college's strategic goal of being an innovation center for creative industries worldwide.

Michael Ferraro  
Executive Director, FIT/Infor Design and Technology Lab  
The Fashion Institute of Technology

As an AI researcher, the project provided a whole new of exploration for us. Understanding what inspires the professionals by observing their creative process sparked new ways for us to apply the current technology. More importantly, it challenges me to think about how we can expand our AI capabilities to help transform the fashion world and beyond.

Dr. Hui Wu  
IBM Research Scientist  
IBM TJ Watson Research Center

Tommy personally thanked each student and mentioned the project and the school 3 times in his keynote address at NRF.

It was exciting to have affirmation from such an iconic leader in the fashion industry



# Customer Experience

Business and marketing students developed ideas that utilized cognitive tools to optimize production and create a closer relationship with the brand.

TOMMY  HILFIGER

hello andrea



## Enhanced Interactive Mirror

Elevate current in-store shopping experience by combining cognitive tools.

Tools included:

- Watson Conversation
- Watson Visual Recognition
- Visual Search
- Social Media Listening



# cognitive features

cognitive search

cognitive listening

cognitive shopping

cognitive fashion

**align searches to product line**

by photo  
by marketing persona

**use fan intelligence** to drive promotions on social media, on the app and in-store

**cross-sell/up-sell** using matching by color, silhouette, similarity and availability, to optimize inventory; voice cognition that is trained across the enterprise and can closely listen to social media to “smartly” respond to customer searches.

**custom** fashion utilizing trend analysis, visual recognition and social insights

# Analysis using IBM's Social Media Listening Tool revealed interesting trends

In particular was how much leading K-pop bands were influencing buying of Tommy products in Thailand.



미틈달 🌟 찬탄일D-6 @1127\_melody · Nov 13

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[instagram.com/p/BbcAcBpF5kA/](https://www.instagram.com/p/BbcAcBpF5kA/)

영국 CLASH 매거진이 담아낸 [#TommyHilfiger](#) 패션필름 속 뮤지션 [#찬열](#)  
[#EXO](#) [#CHANYEOL](#) [#TommyBoy](#) [#타미보이](#)

🌐 Translate from Korean



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WEARABLE FASHION TECH

**FIT**  
**infor** **DTech**



Working with **Neue**, a Swedish fashion tech company, faculty and students developed innovative ideas for for leading Swedish Fashion Brands **BACK** and **POC** Sports.

# We are Neue. We Enable Tech.



We are Neue, a fashion tech company. We help brands and fashion houses connect clothes, wearables, and accessories to the internet. Our production platform is the perfect canvas for your innovative fashion ideas.

[ORDER NOW](#)



**Students** were immersed into the engineering of wearable fashion tech and into the programming required to support innovative product development



The **POC** team designed a backpack that included directional signals, brake lights and vibrating motors that are activated along a trip mapped out on an iPhone.





The Ann-Sofie BACK team designed a cutting edge dress that featured electroluminescent materials and explored **fashion as a service** utilizing sensors in the Neue platform to harvest data.

Harper's Bazaar ICONS 2018,



# REIMAGINE SOFTWARE TRAINING

Our team of faculty and student approached this problem by **stratifying** the development of training materials by identifying three **user profiles** within an organization.



# FASHION ERP

Students, working under close faculty supervision and using **Infor's CloudSuite Industrial**, develop innovative solutions to business challenges facing emerging designers while researching new market opportunities for Infor.



NEW PROJECTS



NEW PROJECTS



# MEDIA & PR

# CONFERENCES

# PRESS

NRF/IBM Showcase, NYC  
WEAR Conference, NYC  
Swedish Consulate, NYC  
Browzwear Industry Conference, NYC  
Fashion Tech Consortium, NYC  
IBM Think Conference, Las Vegas  
ACM KDD Conference, London  
FASHInnovatIOn, NYC  
Infor Think Tank, NYC  
ReMODE 2018, LA  
Austrian CEO Workshop , NYC  
Brazilian Consulate, NYC  
Chargeurs, Berlin

FORBES Magazine  
WWD  
Dazed Digital (UK)  
Fashion Nerd  
Mode (Spain)  
WhoWhatWear (Australia)  
US Fashion Network (UK)  
BaRu.247 (Russia)  
Glossy  
LatestNigerianNews  
Essential Retail  
Internet Retailing  
DigiDay  
DrapersOnline



**Thank you**